

What is claimed is:

1. A modular system for programming machine automation controls, comprising:
 - 5 a library of minor step modules;
 - a procedure creator for creating a machine automation procedure from an assembly of said minor step modules;
 - a product type manager for inputting product parameters independent of said minor step modules;
 - 10 a system configuration manager for defining machine configuration independent of said minor step modules; and
 - an execution engine for calling said procedure and maintaining information flow in and out of said minor step modules.
- 15 2. The system according to claim 1, wherein procedures can further include major step modules assembled from a plurality of said minor step modules to perform a larger machine function.
3. The system according to claim 2, wherein procedures are created from
 - 20 one or more components selected from the group consisting of major step, minor step, repeat, and if statement.
4. The system according to claim 1, further including an information center to provide a common screen for output display.
- 25 5. The system according to claim 1, wherein security can be set to a plurality of access levels by leveraging an existing security model to provide full access to some, while limiting access to others.
- 30 6. The system according to claim 1, wherein one or more minor step modules are directly embedded within the execution engine for improved performance.

7. A modular method for programming machine automation controls, comprising the steps of:
- (i) providing a library of minor step modules;
 - 5 (ii) creating a machine automation procedure from an assembly of said minor step modules;
 - (iii) inputting product parameters independent of said minor step modules;
 - (iv) defining machine configuration independent of said minor step
10 modules;
 - (v) calling said procedure; and
 - (vi) maintaining information flow in and out of said minor step modules.
8. The method according to claim 6, further including the step of assembling
15 major step modules from a plurality of said minor step modules to perform a larger machine function within said procedure.
9. A modular system for programming machine automation controls, comprising:
- 20 a module for providing a library of minor step modules;
 - a module for creating a machine automation procedure from an assembly of said minor step modules;
 - a module for inputting product parameters independent of said minor step modules;
 - 25 a module for defining machine configuration independent of said minor step modules;
 - a module for calling said procedure; and
 - a module for maintaining information flow in and out of said minor step modules.
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10. A storage medium readable by a computer encoding a computer process to provide a modular method for programming machine automation controls, the computer process comprising:

a processing portion for providing a library of minor step modules;

5 a processing portion for creating a machine automation procedure from an assembly of said minor step modules;

a processing portion for inputting product parameters independent of said minor step modules;

10 a processing portion for defining machine configuration independent of said minor step modules;

a processing portion for calling said procedure; and

a processing portion for maintaining information flow in and out of said minor step modules.

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